

OLDEST BEE PAPER  
IN AMERICA

# THE WEEKLY BEE JOURNAL

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DEVOTED TO THE INTERESTS OF HONEY PRODUCERS.

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Chicago, Ill., April 30, 1884.

VOL. XX.—No. 18.

## THE WEEKLY EDITION OF

THE AMERICAN  
**BEE JOURNAL**

PUBLISHED BY

**THOMAS G. NEWMAN,**

EDITOR AND PROPRIETOR,

925 WEST MADISON ST., CHICAGO, ILL.

Weekly, \$2 a year; Monthly, \$1.

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**THOMAS G. NEWMAN,**

925 West Madison Street, Chicago, Ill.

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The Pike County Bee-Keepers' Association will hold its semi-annual meeting at Pittsfield, Illinois, Saturday, May 3, 1884, at 10 a. m. All are cordially invited. Any one having new apiarian implements, or any thing that will advance the interest of the meeting, are requested to bring them for exhibition.

T. C. BUNKER, Sec.

W. T. F. PETTY, Pres.

There will be a meeting of the Northeastern Kansas Bee-Keepers' Association, at Hiawatha, Brown Co., on May 16, 1884. A general attendance of bee-keepers is expected.

Granada, Kan. L. C. CLARK, Sec.

## CLUBBING LIST FOR 1884.

We will supply the American Bee Journal one year, and any of the following Books, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

Prices of both. Club

The Weekly Bee Journal .....	\$2 00..
and Cook's Manual, last edition (in cloth) .....	3 25.. 3 00
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Honey as Food & Medicine, 100 Copies .....	4 50.. 4 25
Blessed Bees .....	3 75.. 3 50
King's Text Book .....	3 00.. 2 75
The Weekly Bee Journal one year and and Gleanings in Bee-Culture (A.I. Root) .....	3 00.. 3 75
Bee-Keepers' Magazine (A.J. King) .....	3 00.. 2 75
Bee-Keepers' Guide (A.G. Hill) .....	3 50.. 3 25
Kansas Bee-Keeper .....	3 00.. 2 75
The Apiculturist, (Silas M. Locke) .....	3 00.. 2 75
New Eng. Apiarian, (W.W. Merrill) .....	2 75.. 2 50
British Bee Journal .....	3 75.. 3 50
The 8 above-named papers .....	9 00.. 7 75

The Monthly Bee Journal and any of the above, \$1 less than the figures in the last column.

Do not let your numbers of the BEE JOURNAL for 1884 be lost. The best way to preserve them is to procure a binder and put them in. They are very valuable for reference.

Now is the time to plant young basswood trees, for future pasturage for your bees. You may see them advertised in this paper.

We can supply photographs of Rev. L. L. Langstroth, the Baron of Berlepsch, or Dzierzon, at 25 cts. each.

The Cortland Union Bee-Keepers' Association, will hold their spring meeting May 13, 1884, at Cortland, N. Y.

M. G. DARBY, Sec.

## Advertisements.

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**Dzierzon's Rational Bee-Keeping.**—A Translation of the Masterpiece of that most celebrated German authority, by H. Dieck and S. Stutterd, and edited, with notes, by Charles N. Abbott, *Ex-editor of the "British Bee Journal."* Dr. Dzierzon is one of the greatest living authorities on Bee Culture. To him and the Baron of Berlepsch we are indebted for much that is known of scientific bee culture. Concerning this book, Prof. Cook says: "As the work of one of the great masters, the Langstroth of Germany, it can but find a warm welcome on this side of the Atlantic." Mr. A. I. Root says of it: "Old father Dzierzon... has probably made greater strides in scientific apiculture than any one man... For real scientific value, it would well repay any bee-keeper whose attention is at all inclined to scientific research, to purchase a copy." Cloth, \$3.

**Queen-Rearing, by Henry Alley.**—A full and detailed account of TWENTY-THREE years experience in rearing queen bees. The cheapest, easiest and best way to raise queens. Never before published. Price, \$1.00.

**Bee-Keeper's Guide; or, Cook's Manual of the Apiary.**—This Manual is elegantly illustrated and fully "up with the times" on every subject of bee-culture. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, \$1.25; paper cover, \$1.

**Bees and Honey, or Management of an Apiary for Pleasure and Profit,** by Thomas G. Newman.—Fourth Edition. "Fully up with the times," including all the various improvements and inventions. Chief among the new chapters are: "Bee Pasturage a Necessity," "Management of Bees and Honey at Fairs," "Marketing Honey," etc. It contains 160 pages, and is profusely illustrated. Price, bound in cloth, 75c.; in paper covers, 50c., postpaid.

**Honey, as Food and Medicine,** by Thomas G. Newman.—This pamphlet discourses upon the Ancient History of Bees and Honey, the nature, quality, sources, and preparation of Honey for the Market; Honey as food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, etc.; and Honey as Medicine, with many useful Recipes. It is intended for consumers, and should be scattered by thousands, creating a demand for honey everywhere. Published in English and German. Price for either edition, 5c.; per dozen, 40c.

**Preparation of Honey for the Market,** including the production and care of both comb and extracted honey, and instructions on the exhibition of bees and honey at Fairs, etc., by T. G. Newman. This is a chapter from "Bees and Honey." Price 10c.

**Swarming, Dividing and Feeding Bees.**—Hints to Beginners, by Thomas G. Newman. This is a chapter from "Bees and Honey." Price, 5c.

**Bee Pasturage a Necessity,** by Thomas G. Newman.—Giving advance views on the important subject with suggestions what to plant, and when and how: 26 engravings. This is a chapter from "Bees and Honey." Price, 10c.

**Bees in Winter,** with instructions about Chaff-Packing, Cellars and Bee Houses, by Thomas G. Newman. This is a chapter from "Bees and Honey." Price, 5c.

**Food Adulteration;** What we eat and should not eat. This book should be in every family, and ought to create a sentiment against adulteration of food products, and demand a law to protect the consumer against the numerous health-destroying adulterations offered as food. 200 pages 50c.

**Scribner's Lumber and Log Book.**—Most complete book of its kind published. Gives measurement of all kinds of lumber, logs, and planks by Doyle's Rule, cubical contents of square and round timber, staves and heading bolt tables, wages, rent, board capacity of disterns, cordwood tables, interests, etc. Standard book throughout United States & Canada. Price 35 c. postpaid.

**Fisher's Grain Tables for Farmers, etc.**—192 pages, pocket form; full of useful tables for casting up grain, produce, hay; cost of pork, interest; wages tables, wood measurer, ready reckoner, plowing tables and more miscellaneous matter and useful tables for farmers and others than any similar book ever published. 40 cents.

**Moore's Universal Assistant, and Complete Mechanic,** contains over 1,000,000 Industrial Facts, Calculations, Processes, Trade Secrets, Legal Items, Business Forms, etc., of vast utility to every Mechanic, Farmer and Business Man. Gives 200,000 items for Gas, Steam, Civil and Mining Engineers, Machinists, Millers, Blacksmiths, Founders, Miners, Metallurgists, Assayers, Plumbers, Gas and Steam Fitters, Bronzers, Gilders, Metal and Wood Workers of every kind. The work contains 1,016 pages, is a veritable Treasury of Useful Knowledge, and worth its weight in gold to any Mechanic, Business Man, or Farmer. Price, postage paid, \$3.50.

**Kendall's Horse Book.**—No book could be more useful to horse owners. It has 35 engravings illustrating positions of sick horses, and treats all diseases in a plain and comprehensive manner. It has recipes, a table of doses, and much valuable horse information. Price 25c. for either the English or German editions.

**Quinby's New Bee-Keeping,** by L. C. Root.—The author treats the subject of bee-keeping so that it cannot fail to interest all. Its style is plain and forcible, making all its readers realize that its author is master of the subject.—\$1.50.

**The Hive & Use.**—Being a description of the hive used by G. M. Doolittle. Price, 5c.

**Novice's ABC of Bee-Culture,** by A. I. Root.—This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, \$1.25; paper, \$1.

**King's Bee-Keepers' Text-Book,** by A. J. King.—This edition is revised and brought down to the present time. Cloth, \$1.00.

**Langstroth on the Hive and Honey Bee.**—This is a standard scientific work. Price, 50c.

**Blessed Bees,** by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, 75c.

**Foul Brood;** its origin, development and cure. By Albert R. Kohnke. Price, 35c.

**Extracted Honey; Harvesting, Handling and Marketing.**—A 24-page pamphlet, by Ch. & C. P. Dadant, giving in detail the methods and management adopted in their apiary. 15c.

**Practical Hints to Bee-Keepers,** by Chas. F. Muth; 32 pages. It gives Mr. Muth's views on the management of bees. Price, 10c.

**Dzierzon Theory**—presents the fundamental principles of bee-culture, and furnishes the facts and arguments to demonstrate them. 15 c.

**Apiary Register, for SYSTEMATIC WORK in the APIARY.** The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book. Prices: For 50 colonies, \$1.00; for 100 colonies, \$1.25; for 200 colonies, \$1.50.

## Deutsche Buecher,

### Ueber Bienenzucht.

**Bienen Kultur,** oder erfolgreiche Behandlung der Bienen, von Thos. G. Newman. Dieses Pamphlet enthält Belehrungen über folgende Gegenstände—Vertilgung des Bienenstandes—Honig pflanzen—Erziehung der Königin—Füttern—Schwärmen—Ableger—Verfegen—Italienisieren—Zufuhr von Königinnen—Ausziehen—Bienen behandeln und beruhigen; weiter enthält es ein Kapitel, worin die neueste Methode für die Herrichtung des Honigs für den Handel beschrieben ist. Preis 40 Cents.

**Honig als Nahrung und Medizin**—von Thomas G. Newman. Dieses enthält eine klare Darstellung über Bienen und Honig des Alterthums; die Beschaffenheit, Qualität, Quellen und Zubereitung des Honigs für den Handel; Honig als Nahrungsmittel, angebend wie man Honigtuchen, Formküchlein, Puddings, Schaumconfect, Weine, u. s. w. zubereiten kann; ferner Honig als Medizin mit vielen Rezepten. Es ist für den Consumenten bestimmt, und sollte vieltausendfältig über das ganze Land verbreitet werden. Preis 6 Cents.

**Das Pferd und seine Krankheiten**—Von B. J. Kendall, M. D., enthaltend ein alphabetisch geordnetes Verzeichniss der verschiedenen Pferdekrankheiten, sammt den Ursachen, Symptomen und der richtigen Behandlung derselben; ferner, eine Sammlung werthvoller Rezepte. Preis 25 Cents.

THOMAS G. NEWMAN.

925 West Madison St. CHICAGO, ILL.



# Weekly Bee Journal,

DEVOTED TO THE INTERESTS OF THE PRODUCERS OF HONEY.

VOL. XX.

CHICAGO, ILL., APRIL 30, 1884.

No. 18.

## THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,  
EDITOR AND PROPRIETOR.

### Premiums on Bees and Honey.

The following is the Premium List on Bees and Honey as secured by the Executive Committee of the Iowa Bee-keepers' Association, as mentioned on page 277 of this JOURNAL. These premiums amount to \$175.00, and Iowa bee-keepers should make a success of the apiarian department, by arranging such a display as will create astonishment. It can and should be done. Let every bee-keeper in Iowa read over the List, and then work for the premiums there offered.

	First	Second
Best Italian bees in observatory hive.	\$ 5.00	\$ 2.00
Best Cyprian bees in observatory hive	5.00	2.00
Best Syrian (Holy Land) bees in observatory hive.	5.00	2.00
Best black (German) bees in observatory hive.	5.00	2.00
Best and largest display of different races of bees, in observatory hives	20.00	10.00
Best and largest number of Queen-cells on one frame of comb as actually built by the bees, shown with bees in observatory hive.	5.00	2.00

NOTE.—In awarding the premiums on the different entries of bees, the qualities of Queens and Bees will be considered. The Bees and the Queen-cells should all be shown in observatory hives with glass on both sides, so arranged that both sides of the comb can easily be seen.

Best comb honey, white clover or linden, not less than 20 lbs.	\$ 5.00	\$ 2.00
Best comb honey, fall flowers, not less than 20 lbs.	5.00	2.00
Best and largest display of comb honey	25.00	10.00
Best extracted honey, white clover or linden, not less than 20 lbs.	5.00	2.00
Best extracted honey, fall flowers, not less than 20 lbs.	5.00	2.00
Best and largest display of extracted honey	25.00	10.00
Best beeswax, not less than 10 lbs.	4.00	2.00
Best display of honey plants, pressed, mounted, and labeled.	4.00	2.80

NOTE.—In awarding the Premiums on all the different entries of honey, the committee will give equal consideration to the quality of the honey, and to the style of the packages in which it is exhibited, as regards beauty and desirableness for purposes of marketing.

Bees and Honey are the great attraction at all the fairs which have given prominence to this industry, and we are glad to note the increasing interest year after year in the matter, as well as the increased size of the Cash premiums offered by the wide-awake managers of local, district and State fairs.

There are many good reasons for making magnificent honey exhibits, but the chief one, perhaps, is that those who produce honey for the market, may be induced to present it in the most marketable shape; for the new methods and new ideas of practical management must take the place of the old and undesirable ones.

It should be our aim to make honey a staple product. To this end, let all endeavor to popularize the consumption of honey by the masses, as well as to raise the standard of production, by applying correct principles and progressive art to the management of the apiary.

If there is one thing of more importance than another to the honey producer, it is that of popularizing the consumption of honey. These "shows" are the best educators of the masses that have yet been devised. In an article concerning the Toronto Bee and Honey Show, Mr. Wm. F. Clarke says:

"Under the stimulus of the liberal prize list, there was a magnificent array of honey. The directors appropriated an entire building to the use of bee-keepers, and for the first time at a great exhibition on the American continent, "honey hall" advertised itself side by side with horticultural hall, dairy hall, etc. Honey was displayed in every form, calculated to make the mouths of spectators water. The tin packages and cans were gorgeously colored and labeled; the glass jars were in various beautiful shapes, and even the wooden boxes displayed a wonderful diversity of taste. In the center was a miniature church, ingeniously built of honey-comb and wax, with pinnacles and spire. A smashing trade in honey was done at the exhibition. Thousands of people might be seen with gay-looking tin cans dangling from their fingers, or with pretty glass jars in their hands, or nice boxes under their arms. They bought and carried them home very much as is usually done with toys and trinkets on such occasions. The success of this show awakens great expectations as to the future of bee-keeping in this country.

Of the Honey Show in San Francisco, Cal., the *Semi-Tropic* said:

"The attractive display of bees and honey formed a centre around which

apiarists literally swarmed. One hundred and two varieties of honey-producing flowers, formed a novel and interesting feature of this exhibition. The decorations of white sage were tasteful and appropriate, and the nectar itself, in jars arranged in pyramidal shape, clear as crystal, supported by frame after frame of comb honey, snowy and inviting, made a picture which cannot be photographed except by the artist memory. There were samples of excellent honey vinegar, almost colorless, and above average in acidity; several samples of fruit preserved in honey with undeniable success, and three kinds of honey cake, which elicited the warmest praise from those who were fortunate enough to secure a sample. Fruit cake made with honey is richer, and retains moisture much longer than that made of sugar."

The Fremont, Mich., Indicator of last week, has the following:

George Hilton will attend the bee-keepers' meeting at Berlin, 24th, and also endeavor to have the next meeting of that association held here. It would pay any one interested in that line of business to come to Fremont and look through George's apiary; it is a very well regulated affair.

This is praise worth having. How much better than to say his apiary was a disgrace to the neighborhood.

**Spider Plant.**—Mr. S. F. Daily asks how large the spider plant grows; how far apart the plants should be, etc.?

Its botanical name is *Cleome pungens*, and it thrives best in rich, damp clay soil. It grows to the height of 5 or 6 feet. Plant them about 3 feet apart each way.

It commences to bloom about June 25th, can easily be propagated from the seed, and is an excellent honey-producer.

Balmy spring weather has come at last, and soon the flowers will bloom and all nature will look gay, clad in its rich garb of loveliness.

We have received the Bee-keepers' Price List for 1884 of Thos. L. Thornton, Dividing Ridge, Ky.



For the American Bee Journal.

### Comb Foundation in Brood Frames.

G. M. DOOLITTLE.

On page 672 of the BEE JOURNAL for 1883, I promised to discuss the matter regarding the economy of comb foundation, as Mr. Chas. Mitchell seems to think (page 362 of the BEE JOURNAL for 1883) that my plan of getting the bees to build 4 or 5 nice combs before helped by empty combs or foundation, to be "mistaken economy."

I have reason to doubt Mr. Mitchell's following out the plan as I gave it on page 80, of the BEE JOURNAL for 1883; for he does not even allude to that way of working, but tells us of giving his bees frames half filled with foundation, which was placing them in just the condition I cautioned against, viz.: a condition tending toward the production of drone comb in the brood frames. The object of the plan I gave on page 80, was to have this drone, or store comb, built in the sections, if any such was built at all.

The majority of the bee-keepers of the United States seem to have gone crazy over the using of comb foundation in the brood frames; so it appears to me. This is causing all, whether rich or poor, to believe it necessary to invest a large sum of money in comb foundation, or mills to make it. To those who have plenty of money to use lavishly, I have nothing to say; for it is their privilege to use it as they please; but to those who must deprive their families of the necessities of life, in order to purchase foundation for their bees, I say do not do it; for in my opinion natural comb can be built just as cheaply as we can bother with foundation.

I realize that this assertion will call down many hard thoughts, if not hard words upon myself; but I desire that those who think otherwise, will follow my plan on one or two hives before they are too severe in their criticisms.

The plan I wish them to follow, and the one which has led me to the above opinion, is this: Wait till natural swarming has fully commenced, when two swarms are to be hived on the same day, each being as near equal as possible; one is to be treated to foundation the same as you formerly have done, and the other is to have empty frames given them, each frame having a nice starter of worker comb, or a wax guide the whole length of its top bar, or a strip of foundation  $\frac{3}{4}$  of an inch wide in place of the comb or guide, as you prefer. Place as many frames in the hive thus prepared as it will contain except one; and in place of this frame use a division-board coming within  $\frac{1}{2}$  of an inch of the bottom-board, having this

division-board in the centre of the hive.

Now, hive the swarm, and in 36 to 48 hours see on which side of the brood the bees have commenced to build comb the most largely; for there is where the queen will be; take out the frames on the other side of the brood from where the queen is, and over the part having the frames now left, place a set of sections which are filled with the thin foundation. Leave them (frames and sections) thus, till the bees begin to be crowded for room, when you are to put two or three of the empty frames you removed, in the brood-nest, placing them between those already built, so that each empty frame will come between two full ones. At the same time raise up the partly filled sections, putting another one, prepared the same as the first, under them; if you use the tiering-up plan, or place the sections at the side if you use the side storing plan.

By this plan I get combs built which are all straight worker combs just as good as can be prepared when built of foundation; and also get the foundation thinned and drawn out in the sections; while, if I hive the bees on empty combs or foundation, they use their secretion of wax by placing it upon the foundation in the sections; and thus we have the thick, hard, side walls of the foundation in our section honey, as I have repeatedly proven by scraping the honey off and washing the foundation, when I had a piece that no one could tell from the original.

Did Mr. Caldwell (see page 25) try the above plan in his experiment? or did he hive the bees, giving them the full hive? If he gave them the full hive, of course they would not go into the sections till the hive was all filled below.

The idea is, that a swarm of bees are going to build comb somewhere, or the wax secretion taking place at the time, must go to waste; and if you give them comb foundation in the brood-chamber, they will use their wax in the sections on the foundation. If you give them only a part of the hive, as I have given above, they will use their wax in making nice worker comb below, instead of wasting it by adding it to the foundation given them, as I have described above.

Again, at all times of a heavy yield of honey, the bees secrete wax whether any combs are to be built or not; and if the sections are all supplied with foundation, and the hive filled with comb, this wax is wasted, or else the foundation given is wasted; have it which way you please.

The past season I had several hundred sections placed side by side on colonies hived on a full set of combs; one-half of which had a starter of natural comb, and the other half filled with foundation, and all were ready to come off together; thus proving that in such times of plenty the foundation was simply thrown away, when a full hive of comb was used below. To remedy this waste, I use the  $1\frac{1}{2}$  and 2-pound sections containing only starters, upon colonies whose hives

are full of comb (except to have 3 or 4 sections full of comb foundation, as a leader into the boxes), and place sections filled with foundation in colonies which are building comb. With the one-pound and smaller sections, foundation seems to be a necessity; for the bees seem averse to building comb in so limited a space.

To show that I am not alone in this matter regarding the waste of wax, I wish to quote from two or three of our best apiarists; the first is Prof. Cook, and no one will say that he is not good authority. He says, on page 103 of the latest edition of his Manual, "But I find upon examination that the bees, even the most aged, while gathering, in the honey season, yield up the wax scales the same as those within the hive. During the active storing of the past season, especially when comb-building was in rapid progress, I found that nearly every bee taken from the flowers, contained wax scales of varying size, in the wax-pockets."

This is my experience during "active storing," and the wax scales are to be found on the bees just the same whether they are furnished with foundation or not; and I can arrive at no other conclusion than that arrived at by Mr. S. J. Youngman, when he says, on page 103: "The bees secrete wax during a honey flow, whether they are building comb or not; and if they are not employed in building comb, this wax is most certainly lost."

Once more, on page 93, of the *American Apiculturist*, Mr. G. W. Demaree says: "Observation has convinced me that swarms leave the parent colony better prepared to build comb than they ever are under other circumstances; and if they are not allowed to utilize this accumulated force, by reason of having full sheets of foundation at hand to work out, there will necessarily be some loss; and I think that when the matter is computed, to find the loss and gain, the result will show that the foundation really costs the apiarist double what he actually pays for it in cash."

One more point and I will close. In our locality there is very little white clover, as this is mostly a grain raising district, so the land is plowed so often that white clover cannot get a foot-hold. Thus our bees generally get only enough honey during the month of June to keep up brood-rearing, while our swarming commences from June 15 to 20.

Now, I have often noticed, and especially in looking back over the last year, after reading Mr. Mitchell's "Mistaken Economy," that swarms hived in June would fill their hives full of nice straight worker combs, and the combs would be filled with brood during the first two weeks after hiving; while a colony not casting a swarm would not make a gain of a single pound of honey; nor would a swarm having a full set of combs given them, or the frames filled with foundation, be a whit better off at the end of two weeks.

Mr. P. H. Elwood has noted the same thing; thus proving that the theory that it takes 20 pounds of



honey to produce one pound of comb, will not hold good in cases where bees desire comb and have free access to pollen.

As most of my comb is built at this time, the reader will readily see that the combs cost me but little, save the looking after the colony once or twice while building comb, which is far cheaper than buying foundation, or fussing with a foundation mill.

As I said in a former article, I have never used 10 pounds of foundation in the brood-chamber; yet, I have experimented with it every year, and those experiments have led me to consider it an expensive luxury compared with natural combs, where the above plans are adopted.

In conclusion I will say that if this article shall lead any reader to have his combs built by the bees, thus saving the loss of wax, which must arise from using foundation in the swarming season, and also saving his hard-earned pennies, which he would pay out for foundation, and lay them out for the comfort of his family, this article will not be in vain. As I said at the outset, those having plenty of money to use, as they please, can pass this by unheeded; for, without doubt, they will enjoy the luxury of foundation, or modern transferring, better than to encourage and give the benefits of such economy to some poor neighbor.

Borodino, N. Y.

For the American Bee Journal.

### Convention at Franklin, Ind.

In response to the call, a number of bee-keepers met at the Court House in Franklin, on April 5, and organized a bee-keepers' association. The meeting was called to order by Mr. L. R. Jackson, and the object of the meeting stated.

Mr. H. H. Luyster, of Franklin, was chosen temporary chairman, and L. R. Jackson secretary *pro tem*. On motion, the chairman appointed L. R. Jackson, J. T. Ragsdale and Mrs. Hannah Barlow as a committee to draft a constitution and by-laws, and to report at the afternoon session. The meeting then adjourned.

At 1:30 p. m., the chairman called the meeting to order, and asked for the report of the committee on constitution and by-laws. On motion of Mr. Frank L. Dougherty, the secretary was instructed to read the report, by sections, and the same to be discussed as read. After a few changes, the constitution and by-laws was adopted, and signed by 21 members.

On motion of Mr. John Beard, Mrs. Cass Robbins, President; Mr. Frank L. Dougherty, Secretary; and Mrs. Lizzie Stout, Treasurer, of the Indiana State Bee-Keepers' Association, and Mrs. Robt. A. Kelly and Mrs. H. Delano, of Franklin, were made honorary members.

The following officers were then elected: Prof. C. H. Hall, of Franklin, President; Mrs. Hannah Barlow, of Rocklane, Vice-President; Mr. L. R. Jackson, of Urmeville, Secretary;

and Mrs. Phoebe J. Kelly, of Franklin, Treasurer.

Mr. F. L. Dougherty, of Indianapolis, being called for, made a few remarks, and was subjected to a running fire of questions, for half an hour, which he answered in an able manner. Questions were then asked of others.

Mrs. Robbins urges all, and especially the ladies, to attend the State Association, and to take a more active part in bee-keeping. She is a very enthusiastic bee-keeper, and encouraged our lady bee-keepers very much.

The next meeting will be held at Franklin, Ind., on Saturday, May 3, at 1 p. m.; at which time a much larger, and a very enthusiastic meeting is anticipated.

Mrs. Ella Jackson will read an essay to encourage the ladies in bee-keeping. Topic: "Bee-keeping, a Profitable Business for Ladies."

L. R. JACKSON, Sec.

PROF. C. H. HALL, Pres.

For the American Bee Journal.

### To Iowa Bee-Keepers.

Your attention is called to the fact that at the State Fair in Des Moines, last September, an "Iowa Bee-Keepers' Association" was formed to advance the science of bee-keeping, and to further the interests of bee-keepers. It is very desirable that this association have the friendship and co-operation of every bee-keeper in Iowa.

It is proposed to have a large meeting of bee-keepers on the Fair grounds in Des Moines next fall, Aug. 29 to Sept 5. Bee-keepers are invited to come with their wives and families. Bring tents and other essentials for camping out, and camp on the Fair grounds during the whole time of the Fair. Many people do camp on the grounds every year, and find it a pleasant, interesting, and an inexpensive way of spending Fair week. No charge is made for the privilege of camping on the ground.

It is proposed to have meetings of bee-keepers on the Fair ground, every night during Fair week, for mutual benefit. Experiences will be related, and methods of management discussed. Short papers will be read by practical men and women on important points in connection with bee-keeping. Perhaps some lectures may be given fully illustrated with materials and charts. Hives and other bee-keeping materials will be brought to the meetings and exhibited and discussed. It is believed that these nightly meetings, during Fair week, will be a source of much interest and profit to all. All bee-keepers are urged to come with their families and friends, and encamp near each other in a "bee-keepers' village," and so have a real "school of bee-keeping."

In aid of these nightly meetings, it is proposed to have a good tent bought and owned by the Bee-Keepers' Association, and used as headquarters for all bee-keepers during the Fair week. Such a tent would serve for these large evening meetings, and as a reading

room and committee room during the day. Men who bring blankets with them, will find it a good place to sleep in.

The executive committee of the State Agricultural Society dealt generously with bee-keepers in the premiums offered in our department in 1883. They are still more generous the present year, having increased the aggregate of premiums offered last year by about 60 per cent. This year the premiums amount to \$175. If the bee-keepers of Iowa and the West respond by coming out in force and making a good show, we can, next year, get another advance in premiums.

It will be at once noticed that the premiums, this year, are confined to bees, honey, beeswax and honey plants. Nothing on hives or other bee-keeping implements and materials. This is done by the decision of the executive committee of the State Agricultural Society. They say that in other departments, they give no premiums on tools, implements, machines, etc.; and, hence, it is not consistent for them to offer premiums on these things in bee-keeping. Nevertheless, they have large and profitable exhibits of tools and machinery in all departments, and they invite and expect a large exhibit of the same from bee-keepers.

In bees, honey, beeswax, and honey plants, we believe that the premiums are, on the whole, the best ever offered in America. It is hoped that the bee-keepers from all parts of our State will heartily respond to this generous treatment by coming out in large numbers, and bringing their articles for competition and exhibition. By co-operation among our bee-keepers, we can have a very large, important, and instructive exhibit next fall.

Will you not begin the season with a determination to exhibit at the Fair? Then manage your bees so as to have something good to show, and so plan your work in the fall as to go to the Fair for the whole week if possible, and take your articles with you.

Every bee-keeper in Iowa is invited to interest himself or herself in the prosperity of the State Bee-Keepers' Association. Join it yourselves, and ask your neighbors to join. Attend its meetings, and use your voice and influence to make the meetings valuable. L. E. Cardell, of Malcom, is the secretary. Send him your names, and the annual fee, one dollar, and be enrolled as members. Get your friends to do the same. The money so obtained will be used, this year, for the purchase of the tent, in which all members will have an equal share and right.

The next annual meeting of the State Bee-Keepers' Association will be held on the Fair grounds in Des Moines during the next Fair. All members, men and women, have equal rights and privileges in these meetings. At the next meeting, officers will be chosen for the ensuing year, and the general work and policy of the Association will be decided upon.

While this circular is addressed specially to the bee-keepers of Iowa,

it must be remembered that our Association is open to all from every State who come in and pay the small fee of one dollar. Our Iowa State Fair is open to the world. All competitors from every State and Nation are heartily invited, and their exhibits welcomed to competition on equal terms with those from Iowa.

It is very desirable that all parties, intending to make an exhibit at the Fair, should send a correct list of their proposed entries to Hon. John R. Shaffer, Secretary of the State Agricultural Society, Des Moines, some days before the opening of the Fair. Their entry cards will then be made out, and will be ready when they call for them. This greatly facilitates the labor of all parties.

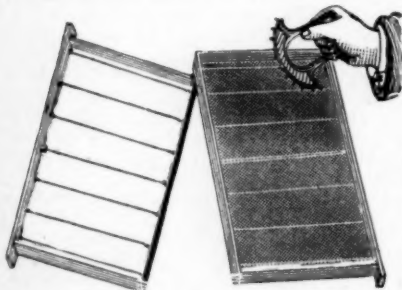
O. Clute, Pres., Iowa City.  
L. E. Cardell, Sec., Malcom.  
M. Sorrick, Treas., Des Moines.  
O. O. Poppleton, Williamstown,  
*Executive Com.*

For the American Bee Journal.

### Foundation in Wired Frames.

C. M. RULAND.

One of the main things that is attracting the attention of bee-keepers at the present time, is wired frames; and the fact that one dealer buys No.



How to use my Wiring Tool.

30 tinned wire by the ton, to supply his customers, and that another states that his sales have increased ten-fold each year, and the large quantities sold by others, indicate the magnitude of its use.

We have yet to hear of the first bee-keeper who has tried wired frames and then abandoned them. I think that it is only a question of knowing their advantages, when all will use them. By their use you are sure of straight combs right where you want them; and, if the wire is properly pressed into the foundation, it saves fastening it to the top-bar; if it is left an inch below it, the bees will extend it the very first thing they do. If a swarm is hived on sheets of foundation, there is no danger of the sheets pulling loose from the top-bar, and falling down, and then there is no sagging.

There is great need of instruction as to the proper manner of wiring them. Only a day or two ago one of my neighbors told me that not knowing the right way, he had put one wire lengthwise of the frame, about half way down; and, although, that

was better than none at all, he was very sorry that he did not put them in right. I would like to give directions for placing the wires, and, from the engraving, I think it will be plain. I have carefully investigated the matter, and I believe the best authorities will bear me out in it.

First, bore 7 holes in each top and bottom bar, the first hole about one inch from the end of the frame, the others about equal distances apart. Commence at one end and sew the wire through the holes, draw it tight, and fasten at each end with a tack driven into the frame with the wire wound around it. Draw the wire tight enough to spring up the bottom-bar slightly, and spring in a stiff stick long enough to draw the bars straight, and the wires will be as straight and tight as a fiddle string. After the wire is pressed into the foundation, this stick can be removed and the foundation will hold the wires straight. I take no stock in top-bars so light that they need diagonal wires and a brace to hold them up. Make the top-bar at least  $\frac{1}{2}$  of an inch thick, and it will never sag.

Over a board the size of the inside of the frame, place the foundation; on this, place the wired frame and press in the wire. Here trouble often occurs; for of all the things that bother bee-keepers in using wired frames, pressing the wire into the wax is the worst. I tried the button-hook process, a small wheel in a handle, a clock-wheel, and numerous other ways, but found them all slow, tedious, and unsatisfactory. They marred the foundation by plowing through it, and left the wire just stuck on, instead of embedded in the wax; so I was compelled to make a tool that would work better.

I first made it of wood; but that got wet, and warped and split; so I cast one of block tin, which has an advantage, as it keeps bright, is very strong, and will last forever.

This tool only touches the wire at intervals of  $\frac{1}{2}$  an inch, and scarcely mars the wax at all. The wire cuts down to the centre of the foundation, and holds almost as strongly as if it were put in with a Given press.

The engraving shows the shape of the tool, and the manner of using it. The directions are for the Langstroth frame, and can be modified to suit any other. I hope that this will help the multitude of seekers for information; and if I have succeeded, I shall be pleased indeed.

Rockton, Ill.

For the American Bee Journal.

### Selling Unripe Honey, etc.

JOHN WITSCHY.

"When shall we extract honey?" is the subject of an article on page 215, in which the writer says it is a question of importance; but I think the answer is still more important.

All are aware of the low price paid for extracted honey; and just as long as bee-keepers practice Mr. Balch's teachings, it will not be any higher.

Mr. B. makes a poor comparison in comparing a bee-hive to a cow stable. All who are acquainted with bees know that there is nothing cleaner than a healthy colony of bees in time of the honey flow. The aroma of the honey indicates the kind, even without opening the hive.

I think we should be satisfied if we save the bees from building comb without bothering about the capping of it. If we considered the quality of honey instead of the quantity, we should soon find the prices increasing. One who sells unripe honey is as dishonest as one who sells unripe fruit. My highest endeavor is not to sell the most honey, but the best. The reason we hear of so much candied honey, is because it was extracted before being ripe, thus the aroma escapes and leaves nothing but a sweet mass unworthy the name of honey. The presence of the aroma is required to preserve it in its natural state. For the past 5 years, I have had no honey granulated before spring.

People will be cheated; for the butter and cheese must be yellow, and the honey white, all contrary to nature; but this is no reason why we should use adulterations. We should aim to keep everything as nearly in its natural condition as possible. Take no honey from the hive before it is capped, and we shall soon have a good demand for extracted honey.

Morrill, Kans., April 14, 1884.

For the American Bee Journal.

### Italian vs. Brown Bees.

H. V. TRAIN.

About 20 years ago I started with a brown race of bees, found in great abundance in the woods along the Kickpoe river, some 25 miles southwest of this place. I kept them apparently pure until 1878 or 1879, when yellow bands began to appear in some colonies; doubtless from Italian drones two miles away. As so much was said in favor of the Italian bees, and they looked so nice, I determined to introduce more Italian blood, and I bought 13 dollar-queens and introduced them.

At the time I introduced these queens, I had 108 colonies; but when white clover bloomed, there were 24 colonies too weak to work in supers; and among them 4 of the Italians. I doubled the 24 down to 12, and gave each of the 4 Italians another colony of bees and brood.

I run all for comb honey, and the result was as follows: Twelve colonies did not swarm; 3 of these were Italians and 9 natives. From 33 Italian colonies, I took from No. 1, 35 lbs.; from No. 2, 35 lbs.; from No. 3, 37 lbs. From the 9 native colonies, I took from No. 1, 42 lbs.; from No. 2, 75 lbs., and so on up to No. 9, 108 lbs. From the Italian colonies that did swarm, I obtained no surplus honey; from the natives that swarmed, I got some surplus from nearly all, and from many over 40 lbs., and from one, 80 lbs. I had 58 young colonies besides nuclei built up. Of these, 20



were pure Italians, and only 5 of them gave any surplus, and the best only 14 lbs.; while nearly all the young natives gave some surplus; many over 40 lbs., and one 65 lbs. But about one-half of those I call natives, had more or less yellow bands, but native queens.

The native queens, which were put into the nuclei, filled their hives of 13 frames, and one of them made 22 lbs. of surplus, and another 10 lbs. I noticed another fact: We could take the honey from 2 native colonies while we were taking the same amount per colony from one Italian. But a friend says Italians can reach deeper into flowers than blacks can. Perhaps they can; I have had no experience with blacks; but here are some more facts: My apiary, in September, was about half and half brown and yellow bees; and about the first of September, being anxious to know where a flow of honey was coming from, I visited some red clover fields near by. The first time, I went in the afternoon, the fields were buzzing with bees, but they were nearly all brown bees.

As I was anxious for facts, I counted, and proved that there were 12 brown bees to one yellow on the red clover blossoms. I went again, and found the same result. Afterwards I went in the morning, and found three brown bees to one yellow bee. These figures surprise me, but they represent facts. I am satisfied that all Italian bees are not superior to some brown bees.

It cannot be that these Italians fairly represent their race, or else they are compared with something more than an average of the German race. With these facts in mind, I, for one, shall go slow in taking a bee merely because it is yellow.

Mauston, Wis.

[Had you purchased good tested queens, probably the result would have been different. Buying poor untested queens may have been the cause.—ED.]

For the American Bee Journal.

### Bees as Property, etc.

E. B. SOUTHWICK.

Mr. Pond has corrected my statement that "bees are not property under the law;" and for proof, cites a case where a man's bees came out of the hive, and he watched them until they went into his neighbor's enclosure, and there secured them, taking them away, and the law bore him out in it. It would be the same if he had a deer, wild turkey, bear, or any of that class of animals. If they had escaped from his enclosure, and he had followed them, keeping in sight of them, as they are required in case of the bees, and the animal goes into his neighbor's barn, and he secures it there, he has the same right to take it away as he had the bees. I once knew of a board of supervisors who voted that they would assess bees \$2 a col-

ony; but some of the more cautious ones concluded they would inquire of some competent lawyer about it, and the result was that the assessing of bees was abandoned in that county. I noticed Mr. Pond's attempt to ridicule the idea of bee-keepers having the right of priority in territory. I think, if a man has discovered a good locality in which to keep bees, and that is unoccupied, and spends his time and money to test and occupy it, he has just as much right, in justice, to it as though it had been some new-fangled tooth-pick he had invented and patented.

Sherman, Mich., April 15, 1884.

For the American Bee Journal.

### Something About Patent-Rights.

JAMES HEDDON.

What is a patent-right? It is simply an exclusive right given to any inventor who will pay for the patenting expenses, as a reward of merit offered for the purpose of stimulating improvements in all the implements and devices used by man.

There have been so many worthless devices patented and sold, that it seems as if, on the whole, the patent-system had been more of an injury than a benefit. Just how much our Nation owes its great advancement in "Yankee invention" to our cheap patent-system, we are hardly able to judge.

Mr. A. I. Root is opposed to patents; at the same time he favors a reward for meritorious inventions, as is proven by the money credits he often gives to some who send him some improvements or new and useful devices.

Be that as it may, we have such a government system created and sustained by the will of the majority, and if we are good citizens, we are bound to obey and help sustain it. There are some good things that grow out of the patent-system, good for the patentee and public.

Mr. Brown discovers a new way to construct a honey extractor, so that it will accomplish much more with less labor and time than any of the past will do. No one knows so well as Mr. Brown just how good all the parts must be made and adjusted to make his invention give that satisfaction that is expected of it, and which he claims for it. He gets a patent on the machine. He begins their manufacture and sale, and fixes a price that will always allow him to make a good article. By thus turning out an honest job, he soon builds up a reputation for his new extractor. This advertises in a very extensive and substantial manner. He thus makes a paying business, and benefits every customer at the same time.

Now, let us suppose that there is no patent-system. Just as soon as Peter Funk finds out that the valuable discoveries and genuine workmanship of Mr. Brown has gained a reputation, out he comes with a little cheap circular, making a specialty of "Brown's honey extractors." But Mr. Brown's good work and square

dealing has turned the whole volume of trade Brown-ward. Very soon Mr. Funk realizes this disagreeable fact, and the next thrust, he cuts prices, and then comes the inevitable cut in the quality of the goods. It is then that Mr. Funk takes a hand in manipulating the reputation of the "Brown extractor." Soon the implement begins to lose reputation. Even Mr. Brown does not make them as good as he used to. He is trying to hold his trade and keep the price as low as that quoted by Mr. Funk, and degeneration in quality is the result. Mr. Brown is damaged. The public are injured, and no one but Mr. Funk is benefitted; and he only until the less enlightened portion of the public can understand that cheap prices mean cheap material and cheaper workmanship.

I believe that a man has a moral right to the exclusive manufacture and sale of the fruits of his mental industry, so long as he is engaged in supplying the public with them of good quality, at a reasonable price. I do not believe in exorbitant prices. I am, however, a stickler for good goods, and detest shoddy wares, as well as moral thievery.

Patent-law, as well as all other law, is made to compel those to act honorably who will not do so of their own free will; then let us truthfully say that we will act honorably, and do not need its restraint.

I think I have never sold any article of another's invention while the inventor was supplying it; except as I purchased of him. Our pursuit has been seriously damaged by the manufacture and sale of shoddy wares. These goods were the necessary result of a cut-under in prices, which was indulged in by some one who had no other means of getting any trade.

By the way, this brings me to a point that I have often thought upon. At present there seems to be a perfect mania for dealing in bee-keepers' supplies. I know there is no bonanza in the supply business. Are not most of those taking to it illy situated and little known; possessing so little enthusiasm in the business of producing honey, that they are led to the new departure? In other words, is the honey business so poor a one that something else must be done, or had better be done? I firmly believe that many are making a mistake in entering the trade at all. Let us see if the future does or does not sustain me in this opinion.

But to return to the patent question. Perhaps no class of business men have been more assiduously worked upon to prejudice them against patents, than have bee-keepers; and all this because our business is surrounded with worthless patents. This is all wrong. When you defame patents and patentees indiscriminately, you are attacking without cause or provocation some of the grandest principles and grandest men that have ever existed.

In our own line, let us look at the Langstroth hive and its inventor. Was it a crime for Mr. Langstroth to patent his valuable discoveries? Was

it wrong for him to charge you \$10 for what was worth to you more than ten times that amount? Did not your \$10 pay for an individual right, and help Mr. L. to enlighten others to the fact that he had hundreds of dollars worth for them for only ten dollars.

"Some people, if they had their pleasure,  
Because silly bargains are made;  
Would deem it a rational measure,  
To lay an embargo on trade."

Patent or no patent, we should avoid buying worthless goods. Worthless either in principle or construction. We should respect the inventor who patents his inventions. We should respect and help to protect him who does not patent his inventions, as long as he deserves it. The question is a simple one; there is nothing mysterious about it.

Dowagiac, Mich., April 2, 1884.

For the American Bee Journal.

### Fixed Frames.

A. WEBSTER.

One writer says: "The nearer we come to nature, the nearer we are to right."

I do not now propose to tell any one how to make bee-hives, or how to construct frames, which, in advanced bee-keeping, are considered the most important feature of hives, but to briefly discuss principles and seek the teachings of nature which are right for a guide in constructing the frames and hives of the future.

The chief advantage of comb frames, to the bee-keeper, is the facility they offer for manipulating in various ways. This has been made much of, while the relations of frames to the natural instincts and working habits of the bees has been neglected.

Frames in their relations to the bees may be considered as follows: 1. As fixtures to which to attach the combs and hold them in place. 2. As bounds to the separate cards or curtains of comb; determining their shape and size, both absolute and relative. 3. As a means of expanding or constructing the hive at the will of the bee-keeper, to meet the requirements of either large or small colonies at all seasons and in all climates. 4. Collectively, as a nucleus about which to arrange surplus receptacles.

1. No one will question that in a natural state bees always select fixed objects to which to attach their combs; or that when put into hives with loose bars or frames, they will fix them in the most thorough manner, which the means at their command will admit; or that any jar or disturbance of their combs, as a whole, or in their relations to each other, is distasteful to the bees. Therefore, we say frames should be fixed firmly in place, but easily detached for necessary manipulation. Safety and convenience unite in requiring it. Thus, only can we come near to nature and to right without sacrificing the requirements of art.

2. As bounds to the cards or curtains of comb, etc. It is pertinent

here to inquire how bees develop their combs in a state of nature, or when their natural working instincts and habits have free and full play uncontrolled by confinement of any kind.

This is sometimes seen even at the North, where bees have been known to establish homes in the open air, or in buildings, attaching their combs to a branch, log, ceiling, or other objects. The operation of comb-building is very interesting.

Having located, clustered, and provided wax to begin with, one comb is started and soon another beside it, which are rapidly extended outwards and downwards until two more are needed, one on each side to fill the circle. And so the work goes on to the close of the season, or until as many combs are provided as the colony can occupy with brood and stores. The depth of the two central combs will equal or exceed their length. The side combs gradually recede in depth and length in about an equal ratio.

If, now, a cylinder of suitable diameter, and of a length equal to its diameter be placed around these combs, and the bees allowed to fasten and complete them, we shall have a hive well suited to the wants of the bees, but not of the best form for the bee-keeper. Trim these combs to a square form; place a square box of suitable size around them, and we have a hive better adapted to the requirements of the bee-keeper, and not objectionable to the bees. Divide this box into diagonal sections corresponding to the curtains of comb, taking out the bee-space between each, and you gain an idea of frames constructed on scientific principles, coming near to nature and near to right.

3. Fix these frames to the bottom-board in a proper manner, and any even number will form a complete skeleton hive, which may be enlarged or contracted at will "on all sides alike," by the addition or removal of frames. Is not this near to nature and near to right?

4. This skeleton hive may be covered with sections or frames on top and on all sides, and thus "supplying abundant room for surplus storage as near as possible to the brood combs, with free continuous passages." Is any system nearer nature,—nearer right?

This is a great subject, a full discussion of which would require a volume, or a series of articles, and must wait. If what I have written shall excite and direct thought and investigation, it is all I have aimed at.

South Northfield, Vt.

For the American Bee Journal.

### Artificial Comb Honey.

A. J. HATFIELD.

On reading an article, on page 87, by C. R. Isham, I was reminded of several instances while attending the Northern Indiana Fair, last fall, and on different occasions since, when in conversation with persons in regard to honey, of being asked: "How is artificial honey made?" I assured

them that it was an impossibility to make artificial comb honey; but they invariably replied that it must be manufactured, for they had read of it in the papers. In some instances it was impossible to convince them otherwise. As this false impression prevails all over the country, it is working serious damage to the honey trade; and as it seems impossible to induce the press, generally, of the country to correct the lie, the thought is suggested that the only way to set the matter right, would be for the bee-keepers of America to bring suit against Prof. Wiley for libel. This suit to be brought about by the North American Bee-Keepers' Association, or in any other way that might be thought best; and in any case supported by contributions from \$1 to \$5, by bee-keepers. Although no damages might be collected, the matter could thus be set right before the public. I give this as a suggestion to those who are better posted than myself, to think of.

New Carlisle, Ind.

For the American Bee Journal.

### Brown Bees vs. Italians.

GEORGE B. PETERS.

In the "Hive and Honey Bee" of our Nestor, will be found a comparison of the different qualities of the Italian and black bees.

In this climate we have a native bee, which has a well defined brown color when in cluster, and so different in character from the "little black bee" described by authors, that I suppose the brown bee is as little like it as the Italian; and, therefore, I assume the brown bee is as much a distinct species as the black, Italian, or Cyprian bee.

Believing Mr. Langstroth has faithfully delineated the characteristics of the two races, I will mention the different habits of the brown bee as distinguished from the Italian.

1. IRASCIBILITY.—The brown bee, when handled with the same care as the Italian, is decidedly more docile and harmless. I have kept bees for 50 years, and as long as I had only brown bees, I never knew what a bee veil or gloves were; never used smoking wood, or any other defense until within the last 20 years, since I, in part, adopted the Italian bee, during which time I have found all of these articles of defense absolutely necessary. I can truthfully assert that I have been more sorely punished in one day by ill-natured Italians than I ever was in the 50 years of intercourse with the brown bee, all put together.

2. QUIETUDE IN HANDLING.—The brown bee is much more restless during work in the interior of the hive, and will not adhere to the combs nearly so steadily as their Italian cousins, making it more difficult to find a brown queen than an Italian one, whose workers remain steadfast on the combs during the examination.

3. ABSCONDING PROPENSITY.—The brown bee is decidedly less disposed to abscond than the Italian bee.



The latter is restless during the swarming impulse, and continues so for some time after they are hived; and their restless disposition causes them to scout for a new home sometimes, even after they are hived and placed on their stands. I have witnessed some facts which warrant this conclusion.

4. **HONEY GATHERING.**—The brown bee is greatly superior to the Italian as a honey gatherer during the spring and early summer; but after July 1, or about that time, they become comparatively indolent; while the Italian continues her vocation with unabated energy, and stores perhaps more honey in September than during any other month in the year, in this latitude. It is during September, with us, that the Italians, on account of bountiful stores, are apt to exhaust their hives by over-swarming; and the vigilance of the bee-keeper is never more in demand to prevent it. On the contrary, the brown bee rarely, if ever, swarms after the first month of summer has passed; no late robbing, or taking away of surplus sections, will induce them to equal their spring work.

5. **COMB BUILDING.**—The combs built by the brown bees in the spring of the year, is much more abundant and more regular than those built by Italians; and when filled with honey, is decidedly white and more beautiful; but in the fall months the tables are turned, except as to regularity and beauty.

6. **WORKING IN SUPERS.**—Every producer of comb honey knows how difficult it sometimes is, to get Italian bees to build in surplus sections. He also knows that the brown bee will begin work in them just as soon as the nursery department can detail a force sufficient to carry on the work. This quality alone, with the producer of comb honey, makes the brown bee pre-eminent, and unequalled by the Italian or any other known race of bees.

The foregoing characteristic features of the two races of bees are clearly marked in this latitude, if in no other region; and I doubt not that every bee-keeper of ordinary powers of observation, has witnessed these traits over and over again.

I have many grades of mixed blood in my apiary, and I think the mis-named hybrid, having about  $\frac{1}{4}$  Italian and  $\frac{3}{4}$  brown-bee-blood, makes the best honey-producers that the new industry has yet developed.

Some eminent apiculturist advocates the culture of the most energetic and prolific queens and their progeny. That is a declaration that some queens are indolent and worthless. Some emblazon their favorites with "bloated promises," but too soon these are followed by "lank performance." Our leading idea should be to investigate, and adopt the truth in whatever habiliments we find it, and to improve and foster everything that promises to advance the prosperity of apiculture.

Peters, Ark.

[Many confound the brown and black bees, calling them "natives."—ED.]

For the American Bee Journal.

### Northeastern Michigan Convention.

The Northeastern Michigan Bee-Keepers' Association held its second annual meeting March 5, at Lapeer. The meeting was an interesting one, and for a local gathering, well attended. Thirty-six members paid their annual dues. The display of apiarian implements and products, although not quite so large as that shown at the first meeting of the society, was very creditable.

The convention was called to order at 10:30 a. m. by President Taylor. The Sec. and Treasurer's reports were read and accepted. The President then called upon members to give their experience in wintering bees.

August Keoppen: Have a good warm hive, and the bees will winter all right.

Byron Walker: I am using some hives, this winter, that have a removable, protective, outer shell of a peculiar kind of building paper; but I think that the character of their winter stores has more to do with the successful wintering of bees than any thing else.

W. F. Card: Bees in box-hives full of cracks and openings, often winter better than those in well-made and painted, movable comb hives.

Sec. Hutchinson: For two winters I have successfully wintered bees by burying them below the frost-line. I simply dig a trench on a sandy hill-side, fill it with dry straw, lay fence posts across the trench, then boards upon the posts, and place the hives in rows upon the boards. Straw is then placed around the hives; fence posts placed with their upper ends together, like the rafter in a building; over the hives, straw a foot deep is put over the posts, and then earth is shoveled on to the depth of two feet. No opening is left for ventilation.

W. Wray: I buried 2 colonies one year ago; gave them a little ventilation, and they wintered well. Last fall I buried 54 colonies; but, of course, I cannot tell now how they are wintering.

C. E. Rulison: I once buried 6 colonies, and only 3 lived. There was but little ventilation, and the combs were very moldy. I have tried extracting all the honey in the fall, from a few colonies, and feeding them a syrup made from granulated sugar. Three colonies were left unprotected. The bees scarcely flew during the winter, but came through in the best condition.

M. D. York: I am satisfied that bees in chaff hives can be shut up too close. Bees that were too warm, and so uneasy that they hung out at the entrance, I have quieted by simply raising the chaff cushions over them. I have one colony in the cellar that is in good condition.

Ira Green: To one man, who once successfully wintered his whole apiary, while others met with heavy losses, I paid \$500 to learn the secret of his success. It was this: plenty of upward ventilation.

Secretary: If ventilation is so essential to success, how did Prof. Cook

succeed so admirably when he hermetically sealed up 2 colonies by pouring water over the hives and allowing it to freeze?

Adjourned until 1:30 p. m.

The President called to order at 1:30 p. m. The Secretary read an essay by Dr. L. C. Whiting. Subject: "The Production of Comb Honey," which will appear in the next BEE JOURNAL.

Mr. Walker: I shall, this season, use a case having glass on one side only, to determine if bees object to working next to glass.

L. D. Gray: By sawing empty sections into several pieces, and putting 3 pieces between the bulged sections, I can crate them without trouble.

C. E. Rulison: For several years I considered separators a necessity, but the experiments of the last year or two, have compelled me to admit that they can be dispensed with.

Mr. York: I have found, by experiment, that bees do not commence work so readily when separators are used. I used separators one year on part of my hives. Those without separators commenced work in the sections, and the combs were partly completed before those with separators had commenced work. I then gave some of the partly-finished sections to those having separators, which started the bees to work; but those without separators finished new sections given them at the time of the removal, sooner than the removed and partly filled sections were finished between separators. I shall also discard the wide frames. The sections are difficult of removal. An upper story filled with wide frames is too much room to give at one time. The lower tier of sections is filled, and becomes travel stained before the upper tier is completed. Of course if wide frames only one tier of sections high are used, this trouble is obviated; but such a course brings in too much complication, and too much manipulation.

The President had laid aside wide frames for the same reason. He had tried different styles of cases, but preferred the Heddon case.

Mr. Walker preferred a combined case and shipping crate of his own make that could be used either in the middle of the brood-nest, at one side, or over it.

The Secretary preferred the Heddon hive, case, and system of management. He objected to Mr. Walker's case upon the grounds that sections of different widths could not be used; that an outer case must be used over it; and that a cheaper shipping crate could be furnished. He also thought that, in order to secure the highest price, propolis should be scraped from the sections, and honey should be graded; and unless removed from the crate, some of the honey would be of a mixed character. He saw no necessity of ever placing sections inside of the brood-nest; if the brood-nest was of such a size that the queen could keep it filled with brood; and if it was full of bees and brood when the honey harvest opened, and boxes were placed upon the hive, the honey would of necessity be stored in the boxes.

"Cane sugar for winter stores," was the title of an essay read by the Secretary. He had experimented several years in substituting a syrup made from granulated sugar for natural stores. Some years the bees wintered all alike; in others there was a decided superiority in favor of the sugar.

R. L. Taylor: Mr. D. A. Jones feeds the syrup as early as he can in order that it may be sealed before cold weather. To retain the heat inside the hive as much as possible, he keeps the entrances nearly closed during the day, and entirely closed during the night.

Mr. Keoppen: What is the use of extracting the honey in the fall and feeding sugar, when it is so difficult to sell the honey? The sugar costs as much, if not more than the honey, and is no better.

President: It is of no use to those who never lose any bees in wintering them; but for those who do, and who can save them by so doing, it is a profitable operation.

Mr. Rulison: I have extracted 100 pounds of fall honey, and sold it at 12½ cents per pound; bought granulated sugar at 9 cents per pound and made 3 pounds of syrup from every 2 pounds of sugar, making a profit of \$6.50.

Mr. Wray: If it is improper food that kills the bees, why is it that bees in the same apiary with the same stores, and the same treatment, stand the winter so differently?

Secretary: How can we know that all the colonies of one apiary have the same kind of stores?

Mr. Wray: If the bees gather from the same localities, why is not the honey the same?

Secretary: It is seldom that all the colonies of an apiary are of the same age. Some of the older colonies may have stores 2 or 3 years old, and, consequently, of a different character. Each colony of an apiary does not always gather from exactly the same source as the others. Italians will gather from red clover, while, perhaps, the blacks are working on buckwheat. In some such manner as this a slight diversity of stores may be accounted for.

Mr. Wray: Why is it that bees in old box hives full of cracks, and left with no protection, so often come through all right; while those in well-made hives do not?

Mr. Walker: These old box-hives usually contain an abundance of old stores. In movable comb hives the best of the honey is often removed each year.

Ira Green: As the spokes in a wheel all point to one common centre, so do the facts in wintering bees all point to ventilation as the one thing needful.

Mr. Rulison: I think the facts point to the food. With movable comb hives we take away the best honey, and let the bees fill the combs with fall honey for winter stores.

Mr. Taylor: Bees in box-hives fill up their hives with good honey, and we cannot get it away from them.

M. S. West: In the statistical table published in 1881, in the BEE JOURNAL, the bees in box-hives came out far behind the movable comb hives.

Mr. Wray: I think that moisture is often the cause of bee-diarrhoea, and lack of ventilation is the cause of moisture.

Mr. York: It is my belief that with our movable system of management, we "wear the bees out" more than with box-hives.

M. D. York read an essay on "What varieties of bees shall we keep?" which will be published next week.

Mr. Rulison: I prefer the pure Italians for all purposes. They are the best honey gatherers; they are peaceable, and "death on moths." I can, by using the extractor, prevent their swarming; but I have never found anything that would keep the Syrians from swarming. I have entirely discarded the Cyprians; they are too cross for me.

Secretary: I agree with Mr. York, inasmuch that were I obliged to choose any pure race for the production of comb honey, I should choose the blacks; but I cannot afford to discard the industry and extra length of tongue of the Italians. We had a dozen or more colonies of hybrids last season, and when the Italians were swarming, they (the hybrids) were working away steadily, with a sort of quiet determination, and storing honey in combs built in the sections, without separators; but nearly as true as so many bricks. My brother or myself could quickly distinguish a case of sections that had been filled by the hybrids.

The discussion on comb foundation was prefaced by the making of foundation by Pres. Taylor, upon a Given press. Mr. Taylor preferred the press because of the thinness of the base, and the softness of the walls of the foundation made upon it; also because the foundation could be made directly on wired frames.

The President's address was excellent and appropriate, being chiefly devoted to the subject of "How to Begin Bee-Keeping." Only those who are energetic, prompt, industrious and persevering, and have a love for the business, should engage in bee-keeping. A location not already stocked with bees should be chosen, and it should be one having an abundance of those blossoms which furnish the main honey crops of the country. He advised the Langstroth hive and frame, and for the production of comb honey, the Heddon case. Beginners, to have Italians, should begin with 2 or 3 colonies, and, by practice, aided by a bee-book and paper, learn the principles of bee-culture.

Secretary: With wired frames there is certainly no necessity of having the combs fastened to the bottom-bars any more than the bees do fasten them without inverting. Would it not be better to make the brood-nest of such a capacity that the queen would keep it full of brood? And then the honey will of necessity be placed in the sections. It is no trouble

to keep the combs so full of brood that, were it not for the projecting ends, no one could tell the top from the bottom-bars.

The committee on exhibits made their report, then came the report of the committee on statistics; the report was as follows: Number of colonies spring of 1883, 577; fall count, 987. Number of pounds of extracted honey, 9,585; number of pounds of comb honey, 9,778; number of pounds of wax, 260.

Adjourned until 7 p. m.

The meeting was called to order at 7 p. m., by the President. Considerable time was spent in discussing foul brood, but nothing new was brought out.

Upon request, the Secretary described the method employed by Mr. D. A. Jones in securing the building of large numbers of queen-cells under the swarming impulse.

Pres. Taylor: Are not the so-called artificial queens just as good as those reared under the swarming impulse, provided the conditions are such that queen-cells are plentifully supplied with royal jelly?

Mr. Rulison: They are just as good. "How to Prevent Swarming," was the next topic of discussion: Mr. Rulison? I prevent it by spreading the combs and using the extractor.

Secretary: Before discussing the question of how to prevent swarming, there is another question I should like to have settled, and that is: "Is it Desirable to Prevent Swarming?" I get more honey from a colony (and its increase) that swarms, than from one that does not. If I could have my choice I would have one swarm from each colony, and by practicing the plan given by Mr. Heddon, on page 126 of the BEE JOURNAL for 1883, I succeeded so well that I had only one after-swarm out of 25 swarms.

Question: "Can the Crystallization of Honey be Prevented by Heating to a High Degree?" Secretary: I saw the above inquiry in the last number of the *Country Gentleman*, and would like the opinion of the convention.

Mr. Rulison: By heating honey very hot, it can be prevented from again crystallizing; but the degree of heat required, is so high that if the honey is not burned, the essential oils are dispelled, and the flavor impaired. If the temperature is not raised above that of the boiling degree, the honey will not be injured. By applying a gentle heat for a long time, honey may be evaporated to about the consistency of dried pitch; it will remain in this state a long time, but will eventually crystallize.

The election of officers resulted as follows: President, R. L. Taylor, Lapeer; Vice-President, M. D. York, Millington; Secretary, W. Z. Hutchinson, Rogersville; Treasurer, Byron Walker, Capac.

Adjourned to meet at Vassar, the first Wednesday in February, 1885.

W. Z. HUTCHINSON, Sec.

R. L. TAYLOR, Pres.

The Lucas Co. Ass'n. will meet on Saturday, May 3, at the Court house, at Chariton, Ia., at 1 p. m. A. REUSCH.



**Local Convention Directory.**1884. *Time and place of Meeting.*

- May 3.—Pike Co., at Pittsfield, Ill.  
T. C. Bunker, Sec.
- May 3.—Progressive, at Bedford, O.  
J. R. Reed, Sec.
- May 6.—Tippecanoe Co., at Lafayette, Ind.  
Mrs. Jas. L. Havens, Sec.
- May 6.—Cattaraugus Co. N.Y., at Randolph, N.Y.  
W. A. Shewman.
- May 6.—Southern Wisconsin, at Janesville.  
J. T. Pomeroy, Sec.
- May 13.—Cortland Union, at Cortland, N.Y.  
M. E. Darby, Sec.
- May 15.—Tuscarawas Co. O., at Port Washington, O.  
A. A. Fradenburg.
- May 16.—N. E. Kansas, at Hiawatha, Kana.  
L. C. Clark, Sec.
- May 20.—N. W. Ills., and S. W. Wis., at Rockton, Ill.  
Jonathan Stewart, Sec.
- May 26.—Will County, at Monee, Ill.  
P. F. Nelson, Sec.
- Oct. 11, 12.—Northern Mich., at Alma, Mich.  
F. A. Palmer, Sec., McBride, Mich.
- Oct. 15, 16.—Northwestern, at Chicago, Ill.  
W. Z. Hutchinson, Sec.
- Dec. 10, 11.—Michigan State, at Lansing.  
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

## SELECTIONS FROM OUR LETTER BOX

**A Visitor from England.**

I hope to have the pleasure of a visit to Montreal, in August next, when the British Association meets; and after the work of the society is over, I should much enjoy a visit to some large apiaries. As I do not happen to know any one interested in bees in America, might I ask some one to send me a list of apiaries which are worth seeing; indeed, any information on this subject will be thankfully accepted by

C. P. OGILVIE, F. L. S.,  
Sizewell House, Leiston, Suffolk,  
England.

**Wintering without Loss.**

On April 17, I took my 20 colonies of bees out of the cellar, in excellent condition, without a loss of more than 4 quarts of dead bees. Every colony lived through the winter all right.

A. L. P. LOOMIS.  
Rosendale, Wis., April 21, 1884.

**Unsealed Sour Honey.**

I removed my bees from the cellar during the latter part of March. Out of 29 colonies put into it, I have left 20 strong ones, 4 weak, and 1 bushel of dead bees. I wintered one on its summer stand without any protection save an enameled sheet over the frames, and during the extreme cold weather, shoveled snow over the hive. This colony is the only one free from diarrhoea. I removed as much pollen as possible in the fall. There was no signs of brood in any of those which died, but there was some brood-rearing going on in those which came through all right. Those having the most capped honey fared the best,

while all that died had unsealed sour honey. I think sour honey is the cause of all the trouble about bee-diarrhoea; and bees will eat it even though they have plenty of capped honey. Bees are doing very well, considering the cold, wet weather we have been having. I tried feeding rye and Graham flour, but the bees would not touch it. They gathered plenty of pollen from elm trees during the past few weeks. Fruit bloom opened up on the 18th, but it was too cold for the bees to improve it, the temperature being as low as 42° above zero all day.

RICHARD GRINSELL.

Baden, Mo., April 21, 1884.

**Aged Queens.**

On page 104, I see a statement about a queen being 11 years old. This reminds me of an old man in this county who has kept bees all his life, and who had a queen 16 years old. While exhibiting an Italian queen at our County Fairs, in 1864 and 1865, he wanted to see the new kind of bees and queen. I had heard of him before, so I told him to go to the observation hive and see if he could find the queen. He did so, and soon found her. He then told those standing around, that he had kept a queen until she was 16 years old; that he had kept track of her from the time she came off with a second swarm; and the 16th year she began to fail so much that he killed the bees with brimstone, and hunted out the old queen to see what she looked like; and he said that she was so old she was as black as his hat; and that she was the blackest queen he had ever seen.

R. R. MURPHY.

Garden Plains, Ill.

**Bees in Good Condition.**

My 27 colonies of bees came out in good condition. Three are queenless, but full of bees. I wintered 14 colonies out-of-doors in chaff hives, and 13 colonies in the cellar. The 14 consumed from 30 to 40 pounds of honey per colony; and the 13 from 10 to 15 pounds per colony.

C. W. JOHNSON.

Norwood, Mich., April 17, 1884.

**Wintering on Unsealed Honey.**

Myself and son began the season of 1883 with 80 colonies in fair condition; and by feeding honey in combs saved from the previous season, they became very strong by the time of white clover bloom, which was quite abundant; but the weather was too cold for the secretion of honey in quantity, and as basswood was nearly a failure, and fall flowers withered on account of dry weather and early frosts, we got but 2,500 pounds of extracted honey, and 1,000 pounds of comb honey; having to feed back 500 pounds for winter stores; so that our average per colony, spring count, was but about 37½ pounds. In 1882, our average yield, per colony, was 120 pounds, spring count. Dec. 3, we put into the cellar 133 colonies, and packed 9 in sawdust on the summer stands outside; so far all are doing nicely.

Those outside had a flight Feb. 2. Our cellar has ranged in temperature from 34° to 39°; the bees are very quiet, and but few dead ones are found on the floor. The entrances are open full width; no cover except quilts, and they are so arranged that there is ½ inch opening at the back of each hive. The hives are tiered up 4 high, with strips of wood between at each end for ventilation. One year ago we wintered our bees in the same manner, without loss, though a few old queens died after they were taken out of the cellar April 10. Many of our colonies had quite an amount of unsealed honey in the hives when put away, owing to the cool weather preventing the bees from evaporating and sealing it after breeding; but so far no bad effects are apparent from it. In preparing our bees for winter, combs with a very large proportion of pollen were removed, and replaced by others with little or none in them.

A. J. HATFIELD.

New Carlisle, Ind., Feb. 7, 1884.

**No Diarrhoea.**

On April 16, after a confinement of 156 days, I placed my bees on the summer stands. All the colonies are strong, and no signs of diarrhoea. The spring bids fair to be an early one, and every thing is looking well for this time of the year.

F. M. TAINTOR.

Elm Grove, Mass., April 17, 1884.

**Testing Thermometers.**

Thermometers are extensively used to indicate the state of the temperature in bee-repositories, cellars, etc. Are thermometers correct instruments with which to test an element so changeable as air? When the weight and measure inspector tests scales, some draw quicker and sharper than others, and do not weigh alike. I think the thermometer, to a certain extent, resembles the scales in correctness. On Niagara Peninsula are vast variations in the temperature as shown by different thermometers; so much so, that at times it is difficult to ascertain which one is correct. On Sept. 15 and 16, 1882, at one time, thermometers indicated all the way from 90° to 104° above zero. On Jan. 22, 1884, within a radius of 16 miles, thermometers indicated from 14° to 42° below zero. Why this variation? Suppose a poultry-keeper hatching eggs in an incubator, was depending on his thermometer to indicate 103° above zero (the proper temperature at which to hatch eggs), and it happened to be 8° too low, making the real temperature 111° above zero, the eggs in the incubator would be scalded, and thus worthless. Will some one who thoroughly understands thermometers, explain how we can know when they are correct?

JOSEPH M. WISMER.

Jordan Station, Ont.

☞ For \$2.75 we will supply the Weekly BEE JOURNAL one year, and Dzierzon's Rational Bee-Keeping, in paper covers; or the Monthly BEE JOURNAL and the book for \$1.75.

## What and How.

ANSWERS BY

*James Heddon, Dowagiac, Mich.*

### Questions about Foundation.

Will Mr. Heddon please answer the following:

1. How is the lye, that adheres to the sheets when using the Given press, best removed from the foundation?
2. Is it in any way detrimental to the foundation if not removed?
3. What is the best method of lubricating the dies with concentrated lye?
4. Is the die-book less inclined to stick to the foundation if kept bright?
5. Is it an easy matter to keep the dies so they will press all parts of the sheet exactly alike, so that no difference in thickness of base can be seen?

SUBSCRIBER.

Pine Plains, N. Y., April 10, 1884.

ANSWERS.—1. By passing the sheet through water.

2. If not removed, it will precipitate, leaving a white powder that will lose all its strength in a few days, and be quickly brushed off by the bees, doing no harm whatever, except to frighten the inexperienced.

3. We used to use the lye so strong that it would very quickly eat up a brush, or other substance used to distribute it. We used to wish for a very fine wire brush. We now use sal-soda or lye so very weak that it does not eat a common brush.

4. Yes, generally; though I have known the book to work quite nicely when the dies were black.

5. Yes; by tacking on strips of tin over the places where the impression is dull till the impression all comes alike.

### Abnormal Swarming.

1. What causes bees to swarm out of the hive during this month?

O. CROWELL.

Hamlet, N. Y., April 15, 1884.

ANSWER.—1. Perhaps all the causes are not clearly understood by any one. Some have ascribed it to lack of pollen; but our 45 colonies entirely destitute of pollen, have offered no such antics; but remain in their hives clean and beautiful to look upon. I have found that any animal in trouble is liable to seek relief by a senseless change of base; and my opinion is, that most of such cases result from intestinal inflammation. It is wholesale spring dwindling; in other words, the milder form of bee-diarrhoea.

### Is that Queen Idiotic?

I have a queen which, I think, Rev. Mr. Langstroth would term "idiotic." She has the appearance, in depositing her eggs, of a laying worker, viz: depositing more than one in a cell; however, the cells seem to be uniformly occupied; and her eggs, when hatched, produce worker larvae.

1. What is the cause of this state of affairs?

2. Would it do to leave her alone until later in the season, and then supersede her? If not, what would you advise doing?

3. About what do you consider an average yield of honey in a fair locality, in about your latitude, for a colony of bees in a movable comb hive, and receiving what attention they require? From reports, I find this rather a difficult matter to ascertain.

A. E. HOSHAL.

Allanburgh, Ont.

ANSWERS.—1. To account for and find first causes for such actions is quite difficult. We have had such queens afterwards to become all right, but none of such late years.

2. I would advise trying her a while before superseding.

3. It is well-nigh impossible to give a sensible answer; for there is so much difference in seasons and colonies. I have obtained as much as 410 pounds of surplus honey from one colony that did not swarm; 48 pounds of which was comb, and the balance extracted. I took 29 pounds 13 ounces of extracted honey (not ripe) from one colony; all stored in empty combs in 24 hours, or about 14 working hours; all from basswood, and was mostly gathered 4 miles distant. These, however, are only possibilities. The proper question, however, is not "how much surplus honey per hive;" but how much surplus per field, or area; and how much capital and labor to get it, the best number of colonies, etc.

### Convention Notices.

A bee-keepers' association is to be organized in Western New York on Tuesday, May 6, 1884, at Randolph, Cattaraugus County. In this southern-tier district there are a large number engaged in bee-keeping, and an association of this kind has long been needed. A general invitation is extended to all interested in bee-keeping.

W. A. SHEWMAN.

The Progressive Bee-Keepers' Association will meet for their spring meeting May 3, 1884, at the apiary and residence of J. B. Haines, Bedford, Cuyahoga County, O. All interested are invited.

J. R. REED, Sec.

The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association, will be held at Rockton, Winnebago Co., Ills., on May 20, 1884.

JONATHAN STEWART, Sec.

The Bee-Keepers of Tippecanoe and adjoining Counties, will hold their regular quarterly meeting at room No. 3, in Purdue College, in the city of Lafayette, Ind., on May 6, 1884. All lovers of the honey bees are respectfully invited to be present and take part in the discussions.

MRS. JAS. L. HAVENS, Sec.

DR. L. SNYDER, Pres.

The bee-keepers of Tuscarawas County will meet in the Town Hall at Port Washington, O., on Thursday, May 15, 1884, to organize a bee-keepers' association. All are earnestly invited to attend.

A. A. FRADENBURG.

The Kentucky Bee-Keepers' Convention meets in Louisville, Ky., during the opening of the Exposition (day not fixed).

N. P. ALLEN, Sec.

### Honey and Beeswax Market.

OFFICE OF THE AMERICAN BEE JOURNAL.  
Monday, 10 a. m., April 28, 1884.

The following are the latest quotations for honey and beeswax received up to this hour:

#### CINCINNATI.

HONEY—There is no life in the market. Extracted honey sells in its regular way and to its wonted channels, without any speculative feeling about it, and brings 7@10c on arrival. Comb honey sells at 15@16c a lb. from store for choice.

BEESWAX—Is in good demand; choice yellow brings 35c a lb. on arrival.

CHAS. F. MUTH.

#### NEW YORK.

HONEY—White clover and basswood in 1 and 2 lb. sections, 14@16c. Dark and second quality, 13@14c; extracted white clover in kegs and barrels, 8@9c.

BEESWAX—Prime yellow, 34@35c.

THURBER, WHYLAND & CO.

#### CHICAGO.

HONEY—Of late receipts of comb honey has been scattered amongst many firms, and as all are desirous of realizing on their receipts at as early a day as possible, prices have been irregular and low, some lots being offered from 5c to 7c per lb., less than 30 days ago. I quote white comb 13@16c; fancy 18c. Extracted honey—demand light, 7@9c.

BEESWAX—30@37c.

R. A. BURNETT, 161 South Water St.

#### KANSAS CITY.

HONEY—Demand for comb honey good, with lower prices: 15@16c for choice 1 and 2 lb. sections. Dark and broken or irregular comb, slow at 10@12c. The liberal receipts of comb honey from New York State have cast much Western honey in the shade, and our Western producers will have to look to their laurels. There have been thousands of pounds of Eastern honey marketed here this season, and almost every comb has been perfect in every respect. It is hard to sell the unsightly stuff that I am receiving daily from other sources, by the side of this handsome honey from the East. Extracted in fair demand, at 8@9c, according to quality and color.

BEESWAX—None in this market.

JEROME TWICHELL, 514 Walnut Street.

#### SAN FRANCISCO.

HONEY—Market is dull, offerings being small, and the demand light. Not until there are free arrivals of new is it likely that the market will present any specially noteworthy features. White to extra white comb, 15@18c; dark to good, 10@13c; extracted, choice to extra white, 7@8c; dark and candied, 5@—

BEESWAX—Wholesale, 27@30c.

STEARNS & SMITH, 423 Front Street.

#### ST. LOUIS.

HONEY—Steady; demand and supply both small. Comb, 12@14c per lb., and strained and extracted 6@6½c.

BEESWAX—Firm at 32@32½c. for choice.

W. T. ANDERSON & Co., 104 N. 3d Street.

#### CLEVELAND.

HONEY—The honey market is unchanged with us. There is a continued steady demand for choice white 1 lb. sections at 18c; 2 lbs. move more slowly at 16@17c; but for second quality there seems to be no demand. Our supplies of 1 lb. are kept well down. Extracted does not sell at all at any price.

BEESWAX—Wanted at 35c.

A. C. KENDEL, 115 Ontario Street.

#### BOSTON.

HONEY—Demand light. 1 lb. sections comb honey, 18@20c; 2 lb. 16@18c. Extracted, 9@11c.

BEESWAX—35c.

BLAKE & RIPLEY, 57 Chatham Street.

#### SAN FRANCISCO.

HONEY—We quote comb honey in 2 lb. sections, 17@18c; extracted, 7@8½c.

GEO. W. MEAD & Co., 213 Market St.



## Special Notices.

Examine the Date following your name on the wrapper label of this paper; it indicates the end of the month to which you have paid your subscription on the BEE JOURNAL.

For safety, when sending money to this office get either a post office or express money order, a bank draft on New York or Chicago, or register the letter. Postage stamps of any kind may be sent for amounts less than one dollar. Local checks are subject to a discount of 25 cents at Chicago banks. American Express money orders for \$5, or less, can be obtained for 5 cents.

We wish to impress upon every one the necessity of being very specific, and carefully to state what they desire for the money sent. Also, if they live near one post office, and get their mail at another, be sure to give us the address we already have on our books.

When writing to this office on business, our correspondents should not write anything for publication on the same sheet of paper, unless it can be torn apart without interfering with either portion of the letter. The editorial and business departments are separate and distinct, and when the business is mixed up with items for publication it often causes confusion. They may both be sent in one envelope but on separate pieces of paper.

It must be understood that, should an advertiser desire to cancel an unexpired contract, he can do so only by paying regular rates for the number of insertions his advertisement has had.

All money orders from foreign countries, should be made payable at Chicago, as the "Madison Street Station" is not an International office.

In reply to many correspondents let us say that we take any kind of postage stamps at their face value—including the 3 cent ones. Silver should never be sent by mail, as it endangers the loss of the letter either by thieves, or else breaks through the envelope and is lost in that way.

We carefully mail the BEE JOURNAL to every subscriber, but should any be lost in the mails we will cheerfully send another, if notified before all the edition is exhausted.

**Subscription Credits.**—We do not acknowledge receipt of each subscription by letter. The label on your paper, or on the wrapper shows the date to which your subscription is paid. When you send us money, if the proper credit is not given you, within two weeks thereafter on your label notify us by postal card. Do not wait for months or years, and then claim a mistake. The subscription is paid to the end of the month indicated on the wrapper-label. This gives a continual statement of account.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

## GETTING UP CLUBS.

To increase the number of readers of the BEE JOURNAL, we believe, will aid progressive bee-culture and help to elevate the pursuit. We, therefore, offer the following premiums for getting up clubs:

While no subscription to the BEE JOURNAL will be taken for less than the regular advertised prices (viz.: Weekly, \$2.00; Monthly, \$1.00),—any one getting up a club of two copies, or more, may select from "OUR BOOK LIST" anything therein named, to the amount of 15 cents for every dollar they send direct to this office, to pay them for the trouble of getting up the club; and these books will be sent, postpaid, to any address desired.

For a club of 3 Weekly or 6 Monthly and \$6.00, we will make an additional present of a Pocket Dictionary, bound in cloth, containing 320 pages.

For a club of 5 Weekly or 10 Monthly, (or a mixed club of both,) with \$10, we will, in addition to the 15 per cent, present a copy of the AMERICAN "POPULAR" DICTIONARY, comprising every word in the English language that enters into speech or writing; it contains 32,000 words and phrases, 670 illustrations and 512 pages; it is nicely bound in cloth, and will be sent by mail, postpaid, to any address desired.

Subscriptions for two or more years for one person, will count the same as each year for a different person.

## Apiary Register—New Edition.

All who intend to be systematic in their work in the apiary, should get a copy and commence to use it. The prices will hereafter be as follows:

For 50 colonies (120 pages).....\$1 00  
 " 100 colonies (220 pages)..... 1 25  
 " 200 colonies (420 pages)..... 1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable ones.

Dzierzon's new work entitled "Rational Bee-Keeping," we now club with the BEE JOURNAL as follows: The Weekly for one year and the book, bound in cloth, for \$3, or in paper covers for \$2.75. The Monthly BEE JOURNAL and the book, \$1 less than the above prices. It is an imported book, printed in the English language, and the price of the book is \$1.50 bound in paper covers, or \$2.00 when bound in cloth.

**Emerson Binders**—made especially for the BEE JOURNAL, are lettered in gold on the back, and make a very convenient way of preserving the BEE JOURNAL as fast as received. They will be sent, post-paid, for 75 cents, for the Weekly; or for the Monthly, 50 cents. They cannot be sent by mail to Canada.

## Honey as Food and Medicine.

A pamphlet of 16 pages giving Recipes for Honey Medicines, all kinds of cooking in which honey is used, and healthful and pleasant beverages.

We have put the price still lower, to encourage bee-keepers to scatter them far and wide. Single copy 5 cents, postpaid; per dozen, 40 cents; per hundred, \$2.50. 500 will be sent postpaid for \$10.00; or 1000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc., (giving the name and address of the bee-keeper who scatters them). This alone will pay him for all his trouble and expense—enabling him to dispose of his honey at home, at a good profit.

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

We are now preparing a new book for the pocket, to be called "The Bee-Keepers' Convention Assistant." It will contain a copy of a model "Constitution and By-Laws" for the formation of Societies for Bee-Keepers—a simplified manual of Parliamentary Law and Rules of Order for the guidance of officers as well as members, a blank form for making reports for statistical information—and much other useful matter for those who attend Conventions. One of the latter will be a suitable Programme of questions for discussion at such meetings, model Premium Lists for Fairs which may be contracted or enlarged, and then recommended to the managers of adjacent County or District Fairs; a few blank leaves for jotting down interesting facts, etc. We shall aim to make it suitable for any locality, and a book that will commend itself to every bee-keeper in the English-speaking world. It will be of a size suitable for the pocket, nicely bound in cloth, and the price will be 50 cents.

The first edition of the "Apiary Register" having been exhausted, we have just issued a new edition, elegantly bound in Russia leather, with a large worker bee and "Apiary Register" in gold on the side. It forms not only a Register of both Queens and Colonies, but has also an Account Book at the back, in which to keep a record of all the receipts and expenditures of the apiary, which will be found exceedingly valuable. We have also reduced the prices, as will be seen on another page.

**Preparation of Honey for the Market**, including the production and care of both comb and extracted honey, instructions on the exhibition of bees and honey at Fairs, etc. This is a new 10 cent pamphlet, of 32 pages.

**Cook's Manual** in cloth and the **Weekly BEE JOURNAL** for one year will be sent for \$3. Manual and Monthly, \$2.00. We have no more of the old edition left, and, therefore, the club price of that edition at \$2.75, is withdrawn.

**Sample Copies of the AMERICAN BEE JOURNAL** will be sent free to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

Letters for publication must be written on a separate piece of paper from items of business.

We have a few photographs (cabinet size) just taken, of the Rev. L. L. Langstroth, which we can send to those desiring them, for 50 cts. each postage prepaid.

**Ribbon Badges**, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or \$8 per 100.

## WE CALL

the attention of all wanting A No. 1 BEES, Italian, Cyprian or Hybrids, to the following, from one well-known to the readers of this Paper:

"I have never seen a case of foul brood; my bees are entirely healthy, and have always been so, and are O. K. in every respect."

GEO. B. PETERS, M. D.

We can furnish any number of Colonies of the above Bees, and will warrant safe delivery and satisfaction.

N. B.—No Bees will be sold by us, for any consideration, from any apiary that has ever had a case of foul brood in it. For prices and particulars, send to

**FLANAGAN & ILLINSKI,**

Lock box 995, Belleville, St. Clair Co., Ills.  
18A13t 6B3t

## How to Prevent Swarming.

Send for our 23d annual Circular for particulars.

18Atf **HENRY ALLEY**, Wenham, Mass.

## STANLEY'S AUTOMATIC HONEY EXTRACTOR.

Reverses the combs without the aid of the hands; the reverse motion of the crank is all that is required. No time is lost, as we provide every machine with a brake to stop the motion, and the combs are half reversed when the motion stops. Can be used for 2 or 4 combs, as desired. No chance for combs to fall or get injured. The Comb Baskets always stop in the most convenient position for removing or putting in combs. We use XXXX Tin or Galvanized Iron for Cans. The Cylinder of Can is all in one piece. We challenge any Extractor, taking any number of combs, to do one-half the work of our 4-frame Machine. Prices reasonable.

We want to employ good live Agents everywhere. Address,

**G. W. STANLEY & BRO**

14Atf WYOMING, N. Y.

## Italian Queens! Nuclei.

SECOND TO NONE! ORDER NOW!

I rear my QUEENS by the best methods and from the best stocks for business. I send out no Queens that I would not keep in my own apiary. To convince you, send me an order. I will please you.

Queens, untested in June, \$1.50; July, \$1.25  
" tested in " 2.50; " 2.00  
Nuclei, 1 frame (large) June or July, 1.00  
" 2 " (large) " " 2.00  
" 3 " (large) " " 2.50

Price of Queen to be added to prices of Nuclei. Will give special rates to parties who want two or three Nuclei with tested or untested Queens. Address,

**W. C. LESTER,**

Washington Hollow, Dutchess Co., N. Y.

## E. T. LEWIS & CO., Toledo, O.,

MANUFACTURERS OF

All kinds of **Apiarian Supplies**. Special rates to Dealers. Send for Circular. 14Atf

**Dadant's Foundation Factory**, wholesale and retail. See Advertisement in another column.

## THE VICTOR HIVE

is operated upon a new principle by which the sections are placed in vertical lines with the brood frames; continuous passages being effected in a

**Practical Manner!**

It may be arranged for any form of the Langstroth Frame; has been fairly tested, and is the **Best Hive** made for Comb Honey. Send for new Circular.

Address, **DR. G. L. TINKER,**

44Atf NEW PHILADELPHIA, O.

**Dadant's Foundation Factory**, wholesale and retail. See Advertisement in another column.

## The Eureka Wiring Tool

For pressing wire into Foundation. Price, by mail, 50 cents. Don't fail to send for Circulars. Foundation for sale.

17Atf **C. M. RULAND**, Rockton, Ill.

65 ENGRAVINGS

## THE HORSE,

BY B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents.—Sent on receipt of price, by

**THOMAS G. NEWMAN,**

925 West Madison Street, CHICAGO, ILL.

## For Sale!

Eleven hundred lbs. of Beeswax.

**J. C. CONVERSE,**

16A3t Ravenna, Portage Co., Ohio.

**Dadant's Foundation Factory**, wholesale and retail. See Advertisement in another column.

THIS PAPER may be found on file at Geo. P. Rowell & Co.'s Newspaper Advertising Bureau (10 Spruce St.), where advertising contracts may be made for it in NEW YORK.

## DR. FOOTE'S HAND BOOK OF HEALTH,

HINTS AND READY RECIPES,

is the title of a very valuable book that gives a great amount of information, of the utmost importance to Everybody, concerning their daily habits of Eating, Drinking, Crossing, Sleeping, Bathing, Working, etc.

It Costs only **TWENTY-FIVE CENTS**, and contains 28 pages, and is sent by mail, post-paid, on receipt of price. This is just the Book that every family should have.

IT TELLS ABOUT

What to Eat, How to Eat it, Things to Do, Things to Avoid, Perils of Summer, How to Breathe, Overheating Houses, Ventilation, Influence of Plants, Occupation for Invalids, Superfluous Hair, Restoring the Drowned, Preventing Near-Sightedness, Parasites of the Skin, Bathing—Best way, Lungs & Lung Diseases, How to Avoid them, Clothing—what to Wear, How much to Wear, Contagious Diseases, How to Avoid them, Exercise, Care of Teeth, After-Dinner Naps, Headache, cause & cure, Malaria! Affections, Croup—to Prevent.

IT TELLS HOW TO CURE

Black Eyes, Boils, Burns, Chills, Colds, Cold Feet, Corns, Coughs, Cholera, Diarrhoea, Diptheria, Dysentery, Dandruff, Dyspepsia, Ear Ache, Felons, Fetid Feet, Freckles, Headache, Hiccough, Hives, Hoarseness, Itching, Inflamed Breasts, Ivy Poisoning, Moles, Pimples, Piles, Rheumatism, Ringworm, Snoring, Stammering, Sore Eyes, Sore Mouth, Sore Nipples, Sore Throat, Sun-stroke, Stings and Insect Bites, Sweating Feet, Toothache, Ulcers, Warts, Whooping Cough, Worms in Children.

It will Save Doctor Bills!

Price only 25 Cents. Sent by Mail, post-paid, by

**THOMAS G. NEWMAN,**

925 West Madison Street, CHICAGO, ILL.

## DOUGHERTY & McKEE,

Indianapolis, Ind.,

Manufacturers of and Dealers in **BEE-KEEPERS' SUPPLIES AND HONEY**. Langstroth HIVES a Specialty. Dadant's Foundation, Bingham Smokers, Wired frames and Foundation from the Given Press, Sections, Extractors and Honey Jars. Send for our **Price List**. 14A26t

## BEE-KEEPERS, before ordering your BEE APIARIAN SUPPLIES,

Send for our large Illustrated Catalogue, sent free to any address.

10A24t **E. KRETCHMER**, Coburg, Iowa.

**ITALIAN QUEENS, DADANT FOUNDATION, and Supplies**.—It will pay you to send for Circular. **E. F. SMITH**, Smyrna, N. Y. 11Atf

## GOLD

for the working class. Send 10 cents for postage, and we will mail you free, a royal valuable box of sample goods that will put you in the way of making more money in a few days, than you ever thought possible at any business. Capital not required. We will start you. You can work all the time or in spare time only. The work is universally adapted to both sexes, young and old. You can easily earn from 50 cents to \$5 every evening. That all who want work may test the business, we make this unparalleled offer; to all who are not well satisfied, we will send \$1 to pay for the trouble of writing us. Full particulars, directions, etc., sent free. Fortunes will be made by those who give their whole time to the work. Great success absolutely sure. Don't delay. Start now. Address **STINSON & Co.**, Portland, Maine. 4Aly

## Italian Bees and Queens For Sale.

Tested Queens, May, \$3.00; June, \$2.50; after July 1, \$2.00 each. Untested, after June 1, \$1.00; 6 for \$5.40. Full colonies in May, \$7.00; 2 for \$13.00; 10 for \$60.00. After June 1, \$1.00 less each colony Satisfaction guaranteed. **L. S. CROWFOOT**, 12A8t Hartford, Wis., April 1, 1884.

NEW AND USEFUL

## Articles for the Apiary

Send for our 16-page Illustrated Circular. 18Atf **HENRY ALLEY**, Wenham, Mass.



# HELLO! HELLO!

We are now ready to Book Orders for  
**Bee-Keepers' Supplies.**

White Poplar  
Dovetailed  
**SECTIONS**  
A Specialty.

Everything fully up with the times, and  
**At Lowest Figures!**

Send stamp for 32-page Catalogue and Samples.

**APIARIAN SUPPLY CO.,**

7A6m WILTON JUNCTION, IOWA.

## American Linden or Basswood FOR BEES!

5 to 10 inches, per 100.....\$1.50.  
3 to 5 feet, per 100..... 7.00.

For sale by **Z. K. JEWETT, SPARTA, WIS.**  
12A6t 4B2t

## FLAT-BOTTOM COMB FOUNDATION,



high side-walls, 4 to 16 square feet to  
the pound. Circular and samples free

**J. VAN DEUSEN & SONS,**  
Sole Manufacturers,  
Sprout Brook, Mont. Co., N. Y.

**Dadant's Foundation Factory, wholesale**  
and retail. See Advertisement in another column.

**\$66**

a week at home. \$5.00 outfit free. Pay  
absolutely sure. No risk. Capital not  
required. Reader, if you want business at  
which persons of either sex, young or old,  
can make great pay all the time they  
work, with absolute certainty, write for  
particulars to **H. HALLETT & CO., Portland, Maine.**  
4A1y

## Muth's Honey Extractor,

Square Glass Honey Jars, Tin Buckets,

**Langstroth Bee Hives, Honey Sections, etc.**

Apply to **C. F. MUTH,**

976 and 978 Central Ave., **CINCINNATI, O.**

Send 10c. for Practical Hints to Bee-Keepers.

**A PRIZE.**

Send six cents for postage,  
and receive free, a costly box  
of goods which will help you to  
more money right away than  
anything else in this world. All  
of either sex, succeed from first  
hour. The broad road to fortune opens before the  
workers, absolutely sure. At once address, **TRUE  
& CO., Augusta, Maine.** 4A1y

## Vandervort Comb Fdn. Mills,

Send for Samples & Reduced Price-List.

32A8t **J. VANDERVORT, Laceyville, Pa.**

## Given's Foundation Press.

**PUBLIC SENTIMENT** affirms that the **PRESS**  
is **SUPERIOR** for making Comb Foundation either  
in Wired Frames or for **SECTIONS**, and insures  
straight and perfect combs, when drawn out by  
the bees. Send for Circular and samples.

**D. S. GIVEN & CO.,**  
HOOFSTON, ILL.

**Dadant's Foundation Factory, wholesale**  
and retail. See Advertisement in another column.

### APIARY FOR SALE CHEAP.

A one-third interest in an Apiary of 75 colonies  
in good condition, 100 new Hives, 2 Extractors, and  
all necessary implements. Best location for an  
apiary in the State; cheap for cash; possession  
given immediately. For particulars address with  
stamp, **S. D. BATES, box 109, New Madrid, Mo.**  
17A2t

## E. T. LEWIS & CO., Toledo, O.,

MANUFACTURERS OF

All kinds of **Apiarian Supplies.** Special  
rates to Dealers. Send for Circular. 14A1f



## STORY & CAMP,

Manufacturers and Wholesale Dealers in

## PIANOS AND ORGANS

**Decker Bros.,**  
**Haines Bros.,**  
**Mathushek,**  
**Simpson & Co.,**  
**Story & Camp.**

**Estey,**  
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The largest exclusively  
Piano and Organ house  
on the Continent.

Territory given. **Agents Wanted.** Protection  
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Write for our prices before buying else-  
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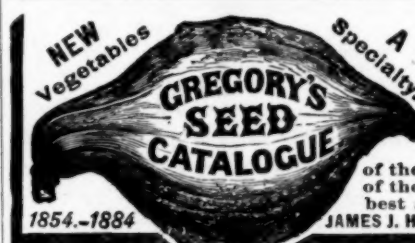
## STORY & CAMP,

188 & 190 State Street,

CHICAGO.

203 N. Fifth Street,

ST. LOUIS.



All my Seed is warranted to be fresh and  
true to name, so far that should it prove  
otherwise, I agree to refill orders gratis.  
A large part of the great collection of  
Seed I offer is of my own growing. As the  
original introducer of Eclipse Beet, Bur-  
bank Potatoes, Marblehead Early Corn,  
the Hubbard Squash, and scores of other  
new Vegetables, I invite the patronage  
of the public. In the gardens and on the farms  
of those who plant my seed will be found my  
best advertisement. Catalogues **FREE** to all.  
**JAMES J. H. GREGORY, SEED GROWER, MARBLEHEAD, MASS.**

## Bingham Smoker

Borodino, N. Y., Aug. 15, 1882.

**Cyprians Conquered**—All summer long  
it has been "which and tother" with me and  
the Cyprian colony of bees I have—but at  
last I am "boss." Bingham's Conqueror  
Smoker did it. If you want lots of smoke  
just at the right time, get a Conqueror Smoker  
of Bingham. Respectfully,

G. M. DOOLITTLE.

Prices, by mail, post-paid.

Doctor smoker (wide shield) 3½ inch. \$2 00  
Conqueror smoker (wide shield) 3 " 1 75  
Large smoker (wide shield) 2½ " 1 50  
Extra smoker (wide shield) 2 " 1 25  
Plain smoker " 2 " 1 00  
Little Wonder smoker 1½ " 65  
Bingham & Hetherington Honey Knife,  
2 inch " 1 15

TO SELL AGAIN, apply for dozen or half-  
dozen rates. Address,

**T. F. BINGHAM, P. M., or**  
**BINGHAM & HETHERINGTON,**  
**ABRONIA, MICH.**

**AGENTS**

wanted for The Lives of all the  
Presidents of the U. S. The  
largest, handsomest, best book  
ever sold for less than twice  
our price. The fastest selling  
book in America. Immense  
profits to agents. All intelligent people want it.  
Any one can become a successful agent. Terms  
free. **HALLETT BOOK CO., Portland, Me.** 4A1y

## Palace Bee Hive

And Bee-Keepers' Supplies, One-Piece Dovetailed  
Sections, Smokers, etc. Send for Price List.

7A13t **H. C. WHITE, MADISON, IND.**

**HELP**

WANTED.—1 agent wanted in every  
place to sell our new goods. Big pay. 40  
samples only 10c. None free. Cut this out  
Acme Novelty Co., Clintonville, Conn.

13A8t

## PURE PLYMOUTH ROCK EGGS,

Per setting of 13 each, \$1.00. Dry land Goose Eggs,  
per setting of 6 each, 75 cents.

17A2t **E. C. FARQUHAR, Carlos City, Ind.**

## ITALIAN BEES

AT BED ROCK PRICES.

**COLONIES**—8 Langstroth Frames, in  
light shipping box.....\$ 4.50  
8 Thomas Frames, in light shipping box 3.00  
**NUCLEI**—2 or more, with tested queen 2.00  
2 or more, with untested queen 1.50  
**QUEENS**—Tested, by mail..... 2.00  
Untested, by mail..... 1.00

After June 1st, 25 per cent. off.

After June 1, tested, per dozen..... 12.00  
After June 1, untested, per dozen..... 9.00

Breared from Imported or Selected home-  
bred Mothers. No Foul Brood ever known  
here. Address, **C. WEEKS,**  
17A4t **CLIFTON, Wayne Co., TENN.**

**J. W. ECKMAN,**  
DEALER IN

## Pure Italian Bees and Queens

For further information, send for Circular.

7A1y **RICHMOND, Fort Bend Co. TEXAS.**

## CHEAP! CHEAP!

Full Colonies, Nuclei and Italian Queens.  
Send for Price List before buying elsewhere.  
**DAN. WHITE, New London, Ohio.**  
18A5t 5B1t

## For Bees, Queens,

Honey, Foundation, Hives, Sections, and all Apiar-  
ian Implements, send for Circular to

**FLANAGAN & ILLINSKI,**

1A1y Lock box 965, Belleville, St. Clair Co., Ills.

## ELECTROTYPES

Engravings used in the Bee Journal for sale at  
25 cents per square inch—no single cut sold for less  
than 50c. **THOMAS G. NEWMAN,**  
925 West Madison Street Chicago, Ill.

1868. 1884.  
**HEDDON'S**  
COLUMN.



*My New Langstroth Hive.*

I believe my Hive is growing in popularity, to a much greater degree, than is the business of bee-keeping. I am now prepared to furnish these hives made up, and in the flat, at very reasonable prices.

One Hive complete for comb honey...\$3.00  
(The above will contain two cases complete with sections).

The above Hive complete for extracted honey.....\$3.00  
The above Hive complete for both in one.....4.50  
One Hive in the flat.....2.00  
Five or over, each.....1.50

No one should ever order these Hives in the flat, without ordering one made up complete to work by. Parties are advertising Hives as Heddon Hives, that in no wise embrace my principles. Judge only by those purchased from me.

## COMB FOUNDATION.

I now have on hand a freshly-made lot of GIVEN COMB FOUNDATION, made from strictly pure domestic wax, thoroughly cleansed from all impurities. Sizes of brood and surplus,  $8\frac{1}{2} \times 16\frac{1}{4}$ , or Langstroth size. I have also Dadant's best Brood Foundation of same size; also Dadant's 11x11 for American frames. My Circular gives prices.

## SECTIONS.

I am now ready to furnish white all-Dovetail Sections as follows:  $4\frac{1}{2} \times 4\frac{1}{2} \times 6$ , 7 and 8 to the foot, per 1,000, \$6.50;  $5 \times 6 \times 2$ , per 1,000, \$8.00. All shipped from here.

## STUDENTS OF APICULTURE

Will receive terms for 1884 on application.

## BEES and QUEENS.

If you contemplate the purchase of Bees in any shape, tested or untested Queens, it may pay you to send for my

## CIRCULAR for 1884

And be SURE to state whether or not you have my Circular for 1883.  
Address,

**JAMES HEDDON,**  
DOWAGIAC, Cass County, MICH.

## BEE-KEEPERS' SUPPLIES.

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